Notes on *Acacia* Mill. (Leguminosae: *Mimosoideae*), chiefly from Queensland, 5.

Les Pedley

Summary

Pedley, L. (2006). Notes on *Acacia* Mill. (Leguminosae: *Mimosoideae*), chiefly from Queensland, 5. *Austrobaileya* 7(2): 347–356. *Acacia argentina*, *A. burrana*, *A. lumholtzii*, *A. rubricaulis* and *A. webbii* are described as new. Notes on their taxonomic affinities, habitats and geographical distributions are given and illustrations provided. *Acacia tindaleae* Pedley is treated as a synonym of *A. conferta* A.Cunn. ex Benth. and *A. mariae* is described for *A. tindaleae* as usually understood (for example, in *Flora of Australia*). *Acacia microcybe* Pedley is a *nomen novum* for the illegitimate name *A. microcephala* Pedley. A lectotype is chosen for *A. leptostachya* Benth.

Key Words: Leguminosae, Mimosaceae, *Mimosoideae*, *Acacia argentina*, *Acacia burrana*, *Acacia leptostachya*, *Acacia lumholtzii*, *Acacia mariae*, *Acacia microcephala*, *Acacia microcybe*, *Acacia rubricaulis*, *Acacia tindaleae*, *Acacia webbii*, new species, Australian flora, Queensland flora, taxonomy, nomenclature

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Introduction

The molecular and serological studies of Murphy *et al.* (2005) and Brain (1987, 1990) respectively indicate that the relationships among Australian species of *Acacia* are complex and need further study. Consequently there is no entirely satisfactory infrageneric classification. Species considered here, however, are referred to sections recognised by Pedley (1978). A slightly modified version of this classification was adopted for the *Flora of Australia* (Orchard & Wilson 2001).

Previously published papers in this series are Pedley (1964a, 1964b, 1969, 1974).

Taxonomy

Phyllodes uninerved; heads not in racemes [*Acacia* sect. *Phyllodineae* DC.[1], in part].

Acacia conferta A.Cunn ex Benth., *London J. Bot.* 1: 345 (1842).

Acacia tindaleae Pedley, *Austrobaileya* 1: 248 (1980); *Racosperma tindaleae* (Pedley) Pedley, *Austrobaileya* 2: 356 (1987); **syn. nov.**

In his account of *Acacia tindaleae*, Maslin (in Orchard & Wilson 2001) noted that the description applied to plants from New South Wales and to *G. Russell 78/102* from near the type locality in Queensland. He added: "Other Qld specimens from the type locality (including the type itself) ... are unusual in having some characters approaching those of *A. conferta* ...". The type and two other specimens from near the type locality (*B.O'Keefe s.n.* AQ348651 and *G.Russell 78/102*, both BRI) represent a minor variant of *A. conferta* A.Cunn. ex Benth. characterised by the ± spreading hairs of its phyllodes and its flowers slightly larger than is usual for the species. It does not warrant formal taxonomic recognition. Consequently the name *Acacia tindaleae* is treated as a synonym of *A. conferta.* The plants from New South Wales, to which the name is usually applied, represent a distinct species. It is described below as *A. mariae*.

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[1] At the 17th International Botanical Congress in Vienna in 2005 the name *Acacia* was conserved with *A. penninervis* Sieber ex DC. as type (see McNeill *et al.* 2005). It has been added to Appendix IIIA of the International Code of Botanical Nomenclature, but its conservation should be considered only provisional until the entire "Vienna Code" is adopted at the 18th International Botanical Congress in Melbourne in 2011. On its adoption *Acacia* sect. *Phyllodineae*, since it includes the type of the conserved *Acacia*, becomes *Acacia* sect. *Acacia*. For the time being, *Acacia nilotica* (L.) Del. is accepted here as the type of *Acacia* and the *status quo* is maintained.

Acacia mariae Pedley, **species nov.** affinis *A. conferta* A.Cunn. ex Benth. a qua ramulis pedunculisque pubescentibus pilis densis implexis ± adpressis, phyllodiis pilis longiusculis persistentibus adpressis tenuibus debilibus modice obtectis, capitulis amplioribus, petalis longioribus (2–2.2 mm vice plerumque usque 1.5 mm) differt. **Typus:** New South Wales. Pilliga, August 1977, *J.Simmons s.n.* (holo: BRI [AQ264814]; iso (*n.v.*): A, CANB, K, MEL, MO, NSW).

Acacia tindaleae auct. non Pedley; Maslin, *Fl. Australia* 11A: 347 (2001), *pro parte majore* (incl. *t.* 33 A–C, but excl. type and specimen from Queensland cited).

***Etymology*:** The species is named in honour of Dr Mary Tindale who has made significant contributions to the systematics of Australian acacias and ferns. It is regrettable that the name *Acacia tindaleae* has been relegated to the synonymy of *A. conferta*.

Leaves not phyllodinous; heads in axillary racemes
[*Acacia* sect. *Botrycephalae*(Benth.) Taub.].

Acacia argentina Pedley, **species nov.** affinis *A. chinchillensi* Tindale autem foliolis grandioribus, racemis capitulorum brevioribus et plerumque calycibus plus profunde divisis differt. **Typus:** Queensland. Leichhardt District: "Jarwood" Station, 25°19′S 150°01′E, 25 September 1996, *P.I.Forster PIF19673* (holo: BRI; iso: AD, CANB, K, MEL, NSW).

Acacia sp. (Gwambagwine *F.Carter* 2) (Holland & Pedley 2002: 114).

Shrub to 4 m tall; branchlets ± terete, glaucous, sparse to moderately dense indumentum of spreading hairs 0.3–0.5 mm long, hairs extending to leaf axes; stipules absent; young tips silvery grey tinged with yellow. Leaves grey-green; axis (pulvinus, petiole and rachis included) 8–24 mm long, a poorly defined gland between or slightly below lowest pair of pinnae, and another between most distal pair, petiole (pulvinus 1.5–2 mm long included) 4–8 mm long, 2 or 3 pairs of pinnae, their axes 13–20 mm long, each with 6–9 pairs of leaflets, a small gland occasionally between most distal pair; leaflets oblong, rounded at base and tip, 6–9 mm long, 1.4–2.8 mm wide, (2.5–) 3–4.5 (–5) times longer than wide, rather thick, midrib obscure beneath, ciliolate with long hairs; petiolule *c.* 0.5 mm long. Heads (described as yellow) of 20–24 flowers, *c.* 5 mm diameter, in axillary racemes with up to 8 branches, axis to 4.5 cm long, peduncle 5–12 mm long, branches 3–5 mm long, subtended by bract *c.* 1 mm long. Flowers 5-merous; calyx obconical, somewhat angular, 0.6–0.7 mm long, lobes obtuse, ciliate, slightly inrolled, *c.* 0.2 mm long, tube usually with white spreading hairs on angles and a few long adpressed hairs on faces; corolla 1.5–1.6 mm long, lobed to about the middle, the lobes indistinctly uninerved in lower half; stamens *c.* 3 mm long; ovary with dense hyaline hairs, erect at its apex. Pods seen only immature (possibly 6 to 8 weeks to maturity) linear, to *c.* 6 cm long, hirsute. Seeds not seen. **Fig. 1.**

***Additional specimens examined*: Queensland.** Leichhardt District: Ruined Castle Creek catchment, Gwambagwine, 25°13′S, 149°27′E, Jul 1995, *Carter FC2* (BRI); Precipice N.P., Catchment of Precipice Creek, 25°19′S, 150°01′E, Sep 1996, *Forster PIF19740 et al.* (BRI, MEL); Gwambagwine, Ruined Castle Creek catchment, 25°12′S, 149°27′E, Sep 1996, *Forster PIF19649 et. al.* (BRI, MEL, NSW).

***Distribution and habitat*:** *Acacia argentina* is confined to the sandstone areas in the upper catchment areas of creeks draining into the Dawson River north of Taroom. Associated trees are *Corymbia bunites*, *C. watsoniana* subsp. *watsoniana*, *Eucalyptus fibrosa* subsp. *fibrosa*, *Angophora leiocarpa* and *Lysicarpus angusifolius*.

***Notes*:** *Acacia argentina* differs from *A. chinchillensis* in its considerably wider leaflets, usually taller stature and more deeply divided calyx.

***Etymology*:** The specific epithet is derived from Latin *argentum* (silver) with the suffix -*ina*, indicating resemblance; a reference to the appearance of its foliage.

Phyllodes plurinerved; flowers in heads
[*Acacia* sect. *Plurinerves* (Benth.) Maiden & Betche]

Acacia burrana Pedley, **species nov.** affinis *A. simsii* A.Cunn. ex Benth. autem phyllodiis saepe minus elongatis crassis nervatione obscura ornatis, et praecipue leguminis valvis valde tholutis super semina alternatim

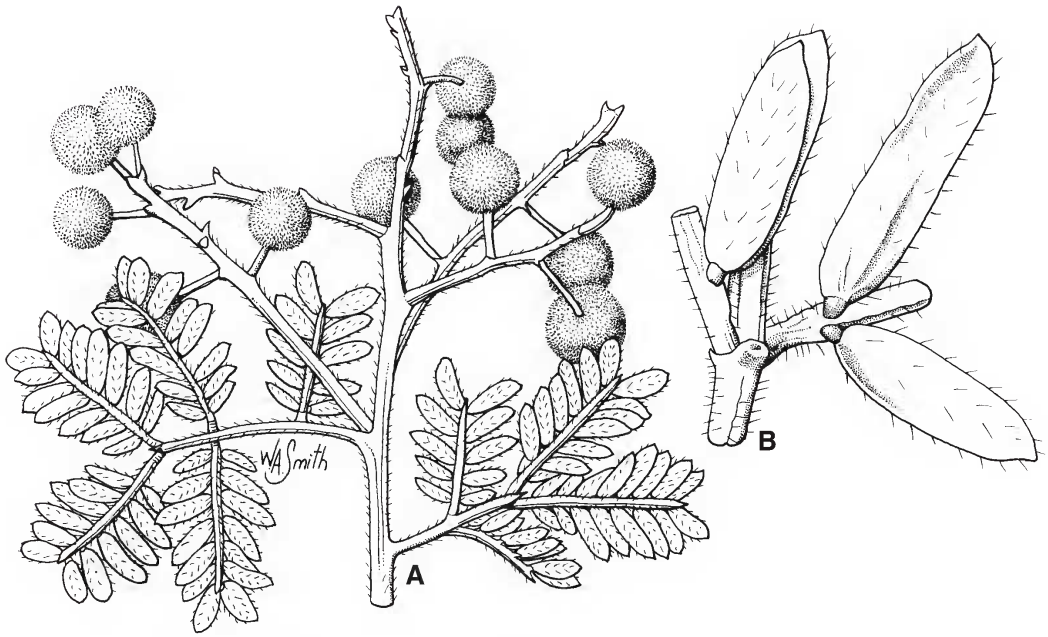

Fig. 1. ***Acacia argentina.*** A. twig with leaves (underside) and inflorescences ×2. B. part of leaf with proximal parts of pinnae and jugal gland ×8. A from *Carter FC2* (BRI); B from *Forster PIF19649 et al.* (BRI). Del. W. Smith.

in superficiebus ambabus differt. **Typus:** Queensland. North Kennedy District: 25 km W of Pentland on Great Dividing Range (area known locally as Burra Range), 20°14′E, 145°14′S, 23 July 1975, *A.D. Chapman 1310* (holo: BRI; iso (*n.v.*): CANB, DNA, K, L, US).

Acacia sp. (Burra Range P. Jobson 467) (Holland & Pedley 2002: 114).

Shrub to 5 m tall; branchlets slender, angular, dark reddish brown, occasionally lenticellular; stipules minute (less than 0.5 mm long). Phyllodes straight or slightly curved, narrowly elliptic to narrowly ovate, usually obtuse at tip with a short sometimes oblique mucro, (3.5–) 4–7.5 cm long, (2.5–) 4–7 (–9) mm wide, 6.5–14 (–15.5) times longer than wide, glabrous, thick, nervature obscure, 3–7 longitudinal nerves with occasional anastomoses visible, marginal nerves yellowish; gland small, usually not projecting from margin, 3–10 (rarely 13) mm from base, occasionally a second gland *c.* 20 mm from base, rarely glands absent; pulvinus 1–2 mm long, transversely wrinkled, contrasting with lamina. Heads (described as dark yellow) of 20–30 flowers, *c.* 5 mm diameter, peduncles 7–10 mm long, glabrous, arranged in pairs or several pairs in upper axils, one head maturing before the other of the pair, basal bract 0.5–1 mm long, occasionally the paired heads in axillary racemes, axis 1.5–2.5 mm long. Flowers 5-merous; bracteoles peltate, stipe slender, *c.* 0.4 mm long, head *c.* 0.3 mm diameter, calyx divided to the base into lobes 0.7–0.9 mm long, linear, slightly expanded at tip, fringed with hyaline hairs; corolla *c.* 1.5 mm long, divided to about the middle, glabrous, lobes with distinct midribs; stamens *c.* 3 mm long; ovary glabrous. Pods straight, linear, glabrous and slightly pruinose, the valves strongly domed over the seeds alternately on each side, the convexity extending to the marginal nerve, with a depression on the valve opposite the convexity, slightly constricted between the seeds, to 9 cm long with up to 10 seeds, 5–6 mm wide, the isthmuses 3–4 mm wide. Seeds longitudinal, obloid, 3.2–4 mm long, 2.8–3.2 mm wide, 2–2.5 mm thick, black, not markedly shiny; funicle expanded into a keeled leaf-like aril on one side of seed, *c.* 1.5 mm wide; pleurogram thick, closed or slightly open; areole concolorous with rest of surface. **Fig. 2**.

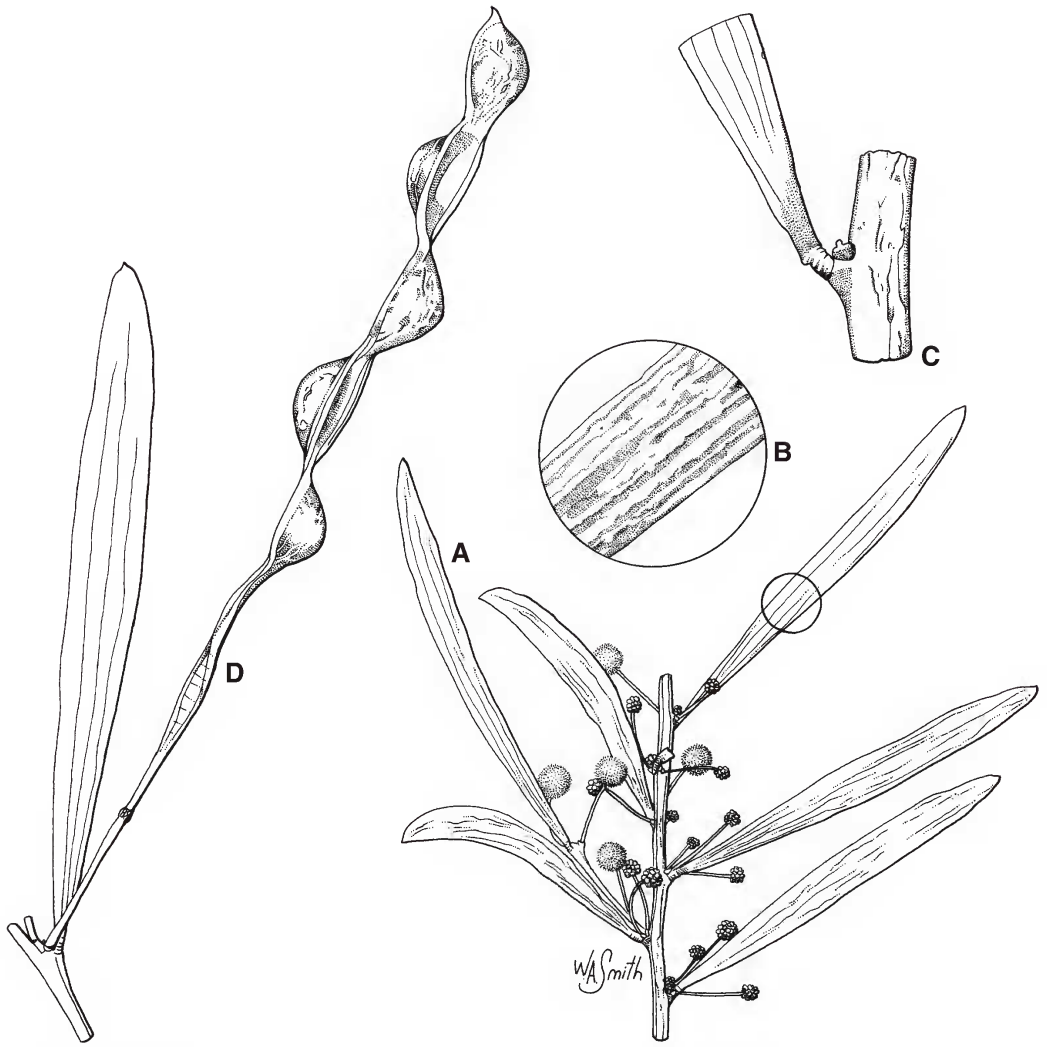

Fig. 2. ***Acacia burrana.*** A. twig with phyllodes and inflorescences × 1. B. portion of phyllode × 4). C. proximal end of phyllode × 4. D. pod on axillary peduncle × 1.5. A–C from *Jobson 467* (BRI); D from *Fletcher 8* (BRI); Del. W.Smith.

***Additional selected specimens*: Queensland.** Burke District: "Warang" Holding, White Mountains, 22°29′S, 144°48′E, Jul 1988, *Fell DF1307A et al.* (BRI). Cook District: Fishermans Waterhole, Walsh River, 17°03′S, 144°36′E, Jun 2005, *McDonald KRM4290 et al.* (BRI). North Kennedy District: 12 km WSW of Mt Stewart, W of Charters Towers, 25°05′S, 146°16′E, Sep 1994, *Cumming 13327* (BRI); Mt Garnet aerodrome, 17°41′S, 145°09′E, Apr 2005, *Forster PIF30644 et al.* (BRI, DNA, K, MEL); Burra Range lookout, 20°43′S, 145°13′E, Mar 1989, *Jobson 467* (BRI; also *n.v.* CANB, HO, MEL); head of Archer Creek, S.F.R. 754, W of Ravenshoe, 18°36′S, 146°26′E, Jul 2004, *McDonald KRM2942 et al.* (BRI); White Mountains N.P., Jul 1999, *Simmons 3929 et al.* (BRI); 7.5 km W of "Windsor" homestead, 20°18′S, 146°02′E, Aug 1992, *Thompson CHA234 et al.* (BRI). Mitchell District: near Red Gorge, White Mountains N.P., 20°30′S, 144°56′E, Jun 1992, *Bean 4585* (BRI; also *n.v.* AD, MEL). South Kennedy District: Cudmore N.P., 22°50′S, 146°20′E, Sep 2000, *Fletcher 8* (BRI).

***Distribution and habitat*:** *Acacia burrana* occurs in the Petford–Herberton–Mt Garnet area and the Great Dividing and Lolworth Ranges at the headwaters of the Cape River and Torrens Creek, with an isolated occurrence some 300 km to the south in the Cudmore National Park. It occurs at above 500 m altitude on shallow sandy soils often derived from sandstone, reported in association with

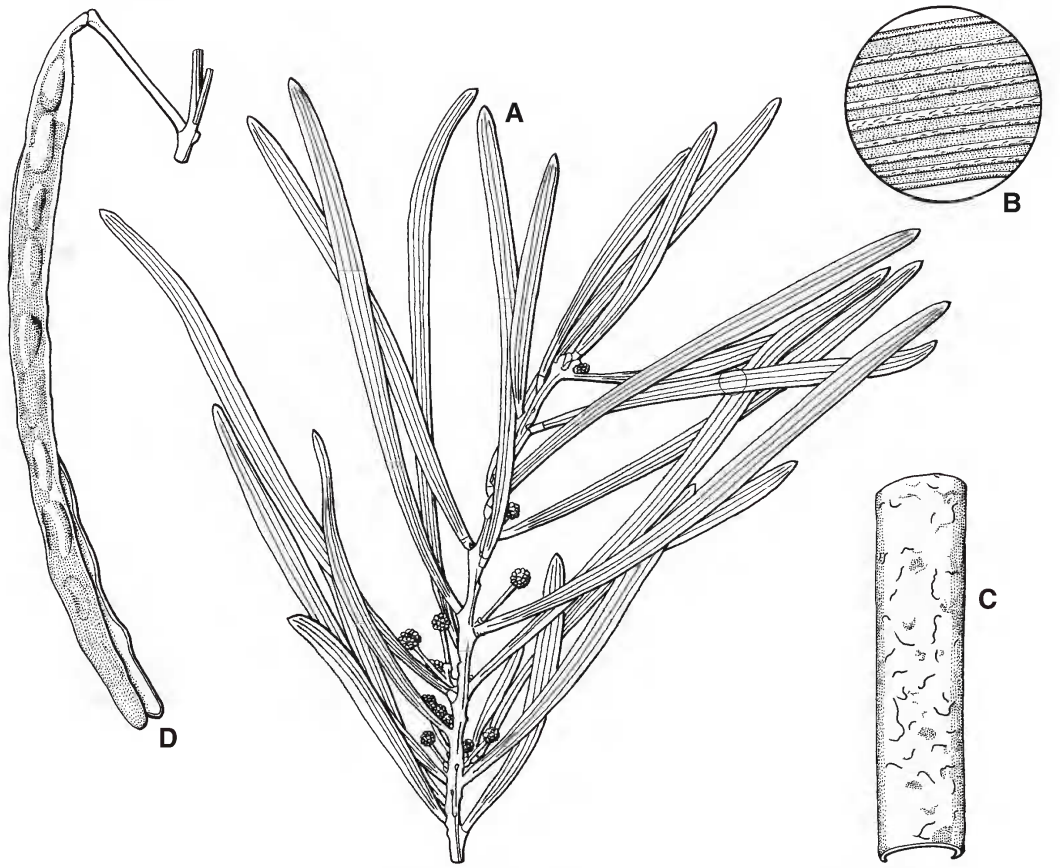

Fig. 3. ***Acacia lumholtzii.*** A. twig with phyllodes and inflorescences ×0.8. B. portion of phyllode ×6. C. stem showing unusual pale bark ×1.5. D. pod ×0.8. A–C from *Fell DF1704* (BRI); D from *Cumming 13813* (BRI). Del. W. Smith.

Corymbia trachyphloia or *Acacia shirleyi* and occasionally at lower elevations on sandy creek banks.

***Notes*:** *Acacia burrana* is closely related to *A. simsii*, but differs most conspicuously in having pods strongly domed over the seeds alternately on each side. Its phyllodes are also thicker with obscure nervature and the basal gland more remote from the pulvinus. Few flowering specimens have been seen.

***Etymology*:** The specific epithet is an adjective referring to the Burra Range, the local name for part of the Great Dividing Range where the plant is found. Burra is a railway siding in the area.

Acacia lumholtzii Pedley, **species nov.** affinis *A. simsii* A.Cunn. ex Benth. a qua cortice eburnea, ramulis dense pubescentibus, phyllodiis apicem ramulorum versus congestis, nervis phyllodiorum longitudinalibus prominentibus pubescentibus, leguminibus plus longioribus angustioribusque super semina vix elevates, seminibus oblongis in ambitu longioribus differt. **Typus:** Queensland. North Kennedy District: Bishop Peak, *c.* 16 km SSE of Cardwell, 18°28′S, 146°07′E, 29 August 2001, *P.Williams TH4578 & J.Kemp* (holo: BRI).

Acacia sp. (Mt Leach Range D.G.Fell+ DF1704) (Holland & Pedley 2002: 114).

Shrub to 4 m tall; bark cream coloured with numerous pustules; branchlets ribbed below insertion of phyllodes, densely, loosely adpressed pubescent, hairs dark brown; young tips dark brown; stipules deltoid, *c.* 0.8 mm long, pubescent, persistent. Phyllodes crowded at end of branches, ascending, linear, straight or slightly incurved, 10–11.5

cm long, 3.3–4 mm wide, 25–33 times longer than wide, nerve-like margins, usually 7 widely spaced longitudinal nerves with occasional anastomoses, midrib a little more prominent than the rest, hairs adpressed, confined to nerves when phyllode mature, apical mucro short, blunt, deciduous; single gland inconspicuous, 2.5–8 mm from base; pulvinus *c.* 2 mm long, adpressed pubescent. Heads of 25–30 flowers, 4–5 mm diameter, in axillary centrifugal racemes, axis to 4 mm long, distal head maturing much before the others, peduncles to 12 mm long, subtended by persistent, concave-ovate bracts; axis and peduncles densely loosely adpressed pubescent, hairs brown; bracteole spathulate, the tip slightly oblique. Flowers 5-merous; calyx obconical, *c.* 1 mm long with oblong incurved obtuse lobes *c.* 0.4 mm long, tube slightly angular, lobes with dense tangled ± adpressed hairs, indumentum extending to distal part of tube; corolla *c.* 1.5 mm long, lobed to about level of calyx, lobes coriaceous without ribs; stamens *c.* 3 mm long; ovary pubescent. Pods linear, to 130 mm long, 3.5–4 mm wide, valves cartilaginous, brown with paler thickened margins, scattered adpressed hairs. Seeds arranged longitudinally, oblong in outline, *c.* 5 mm long and 2 mm wide, black; areole large, rectangular; pleurogram open; aril clavate, creamy. **Fig. 3.**

Additional specimens examined **(both BRI): Queensland**. North Kennedy District: Bishop Peak, Cardwell Range, 18°28′S, 46°07′E, Oct 1995, *Cumming 13813*; Mt Leach Range, *c.* 26 km S of Cardwell, 18°28′S, 146°08′E, Feb 1989, *Fell DF1704 et al.*

***Distribution and habitat*:** *Acacia lumholtzii* is restricted to Bishop Peak (alt. 866 m) in the south-eastern part of Girrigun N.P., south of Cardwell, where it occurs on granite, on rock pavements and cliffs near the summit.

***Notes*:** The nervature of the phyllodes places *Acacia lumholtzii* in the "Oligoneura group" of species of *Racosperma* as circumscribed by Pedley (1987), though the structure of its inflorescence is unusual in the group. In the key to species published there it comes to the couplet *R. ramiflorum/R. simsii*; however, it is rather isolated in the group. The brown hairs that envelope the developing phyllodes and inflorescences, the prominent nerves of the phyllodes, and the remarkably long pods set it apart from all other species.

***Etymology*:** The species is named to commemorate Carl Lumholtz (1851–1922) a Norwegian zoologist and ethnologist. In the 1880's he lived for several years among aboriginal people in north-eastern Queensland. He was based on the Herbert River within sight of the type locality of *A. lumholtzii*, though he never visited the area, being more interested in catching the tree-kangaroo *Dendrolagus lumholtzi*. His book, rather luridly titled "Among Cannibals", is an interesting account of colonial Queensland in the second half of the nineteenth century.

Acacia microcybe Pedley, **nom. nov.**

Acacia microcephala Pedley, *Austrobaileya* 1: 193 (1978) *nom. illeg.* neque A.Richard (1846) neque Macfadyen (1837); *Racosperma microcephalum*(Pedley)Pedley,*Austrobaileya* 2: 352 (1987). **Type:** Queensland. Mitchell District: "Corinda", *c.* 80 miles [130 km] N of Aramac, June 1949, *S.L. Everist 3869* (holo: BRI; iso: NSW).

***Etymology*:** The specific epithet is derived from Greek *mikros*, 'small' and *kybe*, 'head'. There appears to be no adjectival form of the latter; consequently the epithet should be regarded as a noun in apposition with the generic name.

Acacia webbii Pedley, **species nov.** quoad formam nervationemque phyllodiorum et structuram inflorescentiarum leguminum seminumque *Acacia oraria* F.Muell. similis autem phyllodiis amplioribus in interdum longioribus pedunculis vectis et furfure in ramulis phyllodiisque carenti et praecipue trichomatibus in pagina phyllodum minutis (sub lente × 20 necessaria) rubribrunneis resinosis et inflorescentiis crescentibus resina velatis differt. **Typus:** Queensland. Cook District: St George River, 3 km N of Fairlight–Palmerville road, 15°45′S, 144°02′E, 23 April 1980, *J.R.Clarkson 3258* (holo: BRI; iso (*n.v.*): K, MO, MEL, PERTH, QRS).

Single-stemmed shrub or small tree to 6m tall; branchlets slender, dark brown, angular, glabrous, somewhat resinous. Phyllodes usually dimidiate and straight or sometimes

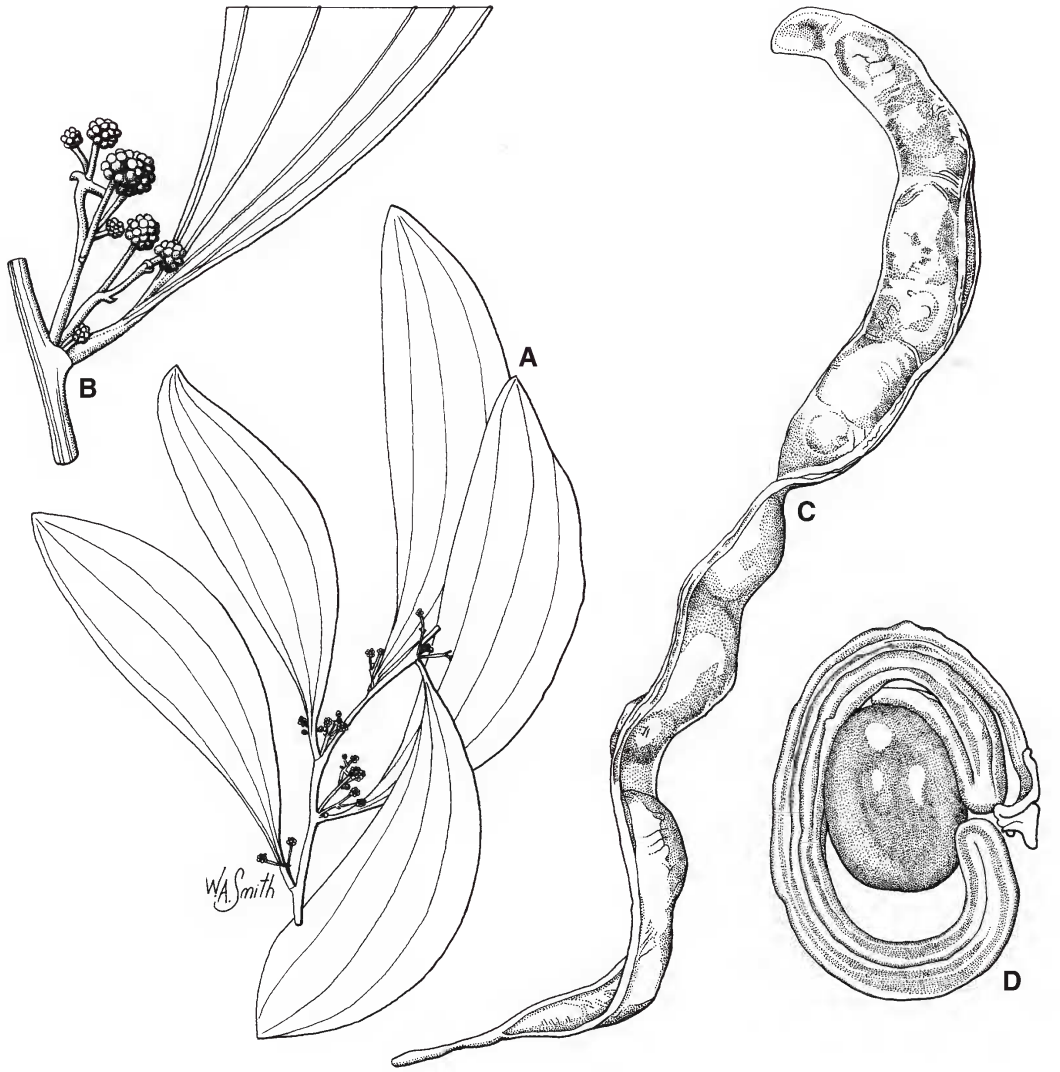

Fig. 4. ***Acacia webbii.*** A. twig with phyllodes and inflorescences × 0.6. B. proximal part of phyllode with inflorescence in axil × 2. C. pod × 1. D. seed with encircling funicle/aril × 5. A & B from *Clarkson 3258* (BRI). C & D from *Webb & Tracey 11134* (BRI). Del. W. Smith.

obovate, slightly incurved, 8–11 cm long, 16–35 mm wide, (3–) 3.5–5.5 times longer than wide; three longitudinal nerves prominent, free to base; secondary nerves fine, intricately anastomosing, tips of young phyllodes dark; phyllode surface with moderately dense minute (× 20 magnification necessary) red-brown resinous trichomes; tip blunt; gland basal, usually inconspicuous; pulvinus 2–4 mm long. Flowers (described by collectors as "cream") in heads of 20–30 flowers arranged in racemes with 1–7 branches in upper axils; axis to 30 mm long; branches, each subtended by small bract, 4–8 mm long at anthesis, occasionally growing out into a leafy shoot; bracteoles oblong, as long as calyx, distal part thick with scattered red-glandular hairs. Flowers 5-merous; calyx 0.8–0.9 mm long, divided to about the middle, tube membranous, lobes thickened with sparse red-glandular hairs, midrib obscure; corolla 1.5–1.7 mm long, glabrous, lobes *c.* 0.5 mm long, thickened, strongly reflexed at anthesis; stamens *c.* 3.5 mm long; ovary glabrous. Pods *c.* 12 cm long

and 1 cm wide, dark brown, yellow thickened margins, loosely coiled; valves coriaceous. Seeds (only two examined) ± obovate in outline, *c.* 5 × 3.5 mm, *c.* 2 mm thick, dark brown, not particularly shiny; funicle/aril orange, folded back on itself encircling seed; areole large, oblong; pleurogram fine, open, slightly darker than rest of seed. **Fig. 4.**

Additional specimens examined **(all BRI): Queensland.** Cook District: East Palmer River immediately east of confluence with Cherry Tree Creek, 28 km SSE of Jowalbinna, 15°58'S, 144°23'E, Aug 2003, *Fox IDF2300* (also *n.v.* MBA); Granite Creek, *c.* 16°10′S, 144°25′E, Jun 1975, *Hyland 8278* (ex QRS); 2 km W of Spion Kop, 22 km S of "Yarraden", 14°30′S, 143°17'E, Jun 2005, *Wannan 4014 et al.* (also *n.v.* CANB, NSW); Palmer River, [probably 16°10′S, 144°45′E], Nov 1969, *Webb & Tracey s.n.* [AQ377877]; Annan River crossing on Mareeba–Cooktown road, 15°41′S, 145°12′E, Jan 1973, *Webb & Tracey 11124*; Palmer River crossing on Mareeba–Cooktown road, Oct 1973, *Webb & Tracey 11134.*

Distribution and habitat**:** *Acacia webbii* is restricted to a small area of north-eastern Queensland between 14.30° and 17° S latitude. It occurs in the sandy beds (usually granitic) of seasonally dry streams and is often periodically submerged by flood waters

Notes**:** *Acacia webbii* is closely related to *A. oraria* F.Muell. differing most conspicuously in lacking the grey scurf that covers the phyllodes, branchlets and inflorescence rachises of that species. Its phyllodes are also somewhat larger, widest above the middle with minute resin-dots on the surface. When well developed the inflorescences are branched, as in *A. leptoloba* Pedley.

Etymology**:** The species is named in honour of Dr L.J (Len) Webb (1920-) whose classification of rainforests has profoundly influenced the study of these complex communities in Australia.

Phyllodes plurinerved; flowers in spikes [*Acacia* sect. *Juliflorae* (Benth.) Maiden & Betche]

Acacia leptostachya Benth., *Fl. Austral.* 2: 406 (1864); *Racosperma leptostachyum* (Benth.) Pedley, *Austrobaileya* 2: 351 (1987). **Type:** Port Denison, *Fitzalan* (lecto [here designated]: K; iso: MEL, NSW).

Acacia argentea Maiden, *Proc. Roy. Soc. Queensland* 30: 41 (1918). **Type:** Cook District: Almaden, August 1913, *R.H.Cambage 3893* (iso: BRI).

Notes**:** Detailed studies have shown that some widespread variable species, e.g. *Acacia aulacocarpa* A.Cunn. ex Benth. (McDonald & Maslin 2000), *A. cowleana* Tate (McDonald & Maslin 1997) and *A. tumida* F.Muell. ex Benth. (McDonald 2003), consist of a number of closely related but distinct taxa. *Acacia leptostachya* may be a species complex of the same sort. A variant with wide pods and transverse seeds, apparently confined to soils derived from serpentinite in east-central Queensland, certainly warrants recognition taxonomically. Further study could well reveal other variants of significance. As part of such a study, the status of *A. capillosa* Pedley (as suggested by Maslin in Orchard & Wilson 2001) should be re-assessed.

Since Bentham cited four syntypes in the protologue of *Acacia leptostachya*, lectotypification to fix the application of the species name is desirable before the species is formally fragmented. The specimen chosen is representative of the species over a large part of its range, as is the type of *Acacia argentea* Maiden.

Acacia rubricaulis Pedley, **species nov.** quoad nervos secundarios late separatos *A. leptocarpa* A.Cunn. ex Benth. similis autem ramulis atrorubris crassis valde angulatis, plerumque in sicco politis, rhachidibus spicarum conspicue pruinosis, floribus fortiter constructis, petalis calycibus multo longioribus, et proprie leguminibus brevibus oblongis differt. **Typus:** Queensland. Cook District: Logan Jack Creek, 11°12′S, 142°45′E, 2 August 1987, *H.Gitay HG109* (holo: BRI).

Acacia sp. (Harmer Creek J.R.Clarkson+ 9133) (Holland & Pedley 2002: 114).

Shrub to 6 m tall; branchlets strongly angled, often appearing polished when dry, dark red, stout, glabrous; stipules deltoid, *c.* 0.5 mm long, deciduous; young tips and distal ends of developing phyllodes dark reddish brown. Phyllodes ovate or elliptic, straight, dimidiate or slightly falcate, 13.5–19 cm long, 22–42 mm wide, (4.3–) 5–6.6 times longer than wide,

Fig. 5. ***Acacia rubricaulis***. A. twig with phyllodes and inflorescences × 0.4. B. portion of phyllode × 1. C. portion of spike; flowers with stamens and styles removed × 3. D. pod × 1. A–C from *Gitay 109* (BRI); D from *Clarkson 9133* (BRI). Del. W. Smith.

glabrous, three longitudinal nerves more prominent than the rest, free to the base or running together in the middle of the phyllode (similar to those of *A. polystachya*), secondary longitudinal nerves fine, widely spaced, 1–1.5 mm apart, some anastomoses; gland basal or up to 5 mm from the base, usually inconspicuous, orifice small; pulvinus 5–12 mm long, dark red, polished. Flowers in spikes in pairs in the upper axils; spikes 40–65 mm long, sparsely flowered, rachis conspicuously pruinose, peduncles 0–5 mm long, glabrous, subtended by deciduous concave bract *c.* 1.5 mm long. Flowers 5-merous, perianth parts rather leathery; calyx cylindrical, pruinose, without veins, 0.5–0.6 mm long, sinuolately lobed, lobes *c.* 0.1 mm long; corolla 2.2–2.4 mm long, *c.* 4 times longer than the calyx, lobed to about the level of the calyx, lobes spreading widely at anthesis, glabrous, obscurely uninerved; stamens rather short, *c.* 2.5 mm long; ovary densely pubescent. Pods (immature) flat, oblong, to 5 cm long, *c.* 8 mm wide, with up to 6 seeds; valves glabrous, only obscurely nerved. Seeds (extremely immature) longitudinal, funicle thickened, folded twice, forming aril beneath seed. **Fig. 5.**

***Additional specimens examined*: Queensland**. Cook District: S of Harmer Creek, 37 km E of "Nixon" homestead, 11°57′S, 142°55′E, Oct 1991, *Clarkson 9133 & Neldner* (BRI, MBA, PERTH); 10 km N of mouth of Olive River, 12°04′S, 143°05′E, Apr 1993, *Clarkson 9913 & Neldner* (BRI, K, PERTH); 4 km W of Rocky River

mouth, 37.4 km ENE of Coen, 13°46′S, 143°29′E, Aug 1993, *Fell DGF3478 et al.* (BRI, MBA); Round Point, Shelburne Bay, 11°54′S, 143°06′E, Nov 1985, *Gunness AG1923* (BRI); between Rocky River and Massey Creek, 13°40′S, 143°25′E, Sep 1973, *Stocker 1073* (BRI; ex QRS).

***Distribution and habitat*:** *Acacia rubricaulis* is restricted to the eastern coast of Cape York Peninsula between about 11° and 14° S where it occurs in sand on dune fields, degraded sand-dunes and creek banks. It has been recorded once from the margin of rainforest.

***Notes*:** *Acacia rubricaulis* is a distinctive plant with obscure relationships. In WATTLE (Maslin 2001) it keys to a group of species including *Acacia crassa* Pedley, *A. cowleana* Tate and *A. lamprocarpa* O.Schwarz, but its widely spaced secondary nerves (an attribute not used in the key), point to a relationship with *A. leptocarpa*. The stout, red, strongly angular, polished branchlets, pruinose spike-rachis, thick perianth parts and short oblong pods clearly distinguish it from all other species. Its pods resemble those of an undescribed species, *Acacia* sp. (Castletower N.Gibson TOI345), which; however, has close parallel nerves similar to those of *A. julifera* Benth.

***Etymology*:** The epithet is derived from Latin *rubri-* (red) and *caulis* (stem). Stout red branchlets are characteristic of the species.

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